

DETAILED ACTION

Allowable Subject Matter

1. **Claims 1 and 3-5** are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed because the closest prior art, Yutaka et al., "Novel Modulation and Detection for Bandwidth-Reduced RZ Formats Using Duobinary-Mode Splitting in Wideband PSK/ASK Conversion" by itself or combination with F. Liu et al., "A novel chirped return-to-zero transmitter and transmission experiments," fail to anticipate or teach a mixer generating a modulator input by mixing data with a half clock signal where in the mixer adjusts logical data "0" to data 0V and adjust a clock signal to symmetrically swing around 0V and coupling the modulator input data signal with applied bias voltage into a single external modulator for generating a CS-RZ signal in which phase of adjacent pulses are inverted.

Yutaka et al. simply disclose a half clock signal with first Mach-Zehnder modulator (MZ#1) which couples into second Mach-Zehnder modulator (MZ#2) and output DCS-RZ signal. F.Liu et al. disclose 2:1 selector (mixer) having clock signal with two data inputs which couple into a single external modulator for generating CRZ signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHYOWAI LIN whose telephone number is (571)270-1659. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PWL

04/03/08

/Kenneth N Vanderpuye/
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